

Hydrologic Model Manager

Short Name	HMS
Long Name	Hydrologic Model System
Description	
Model Type	Physically based parameter-distributed models
Model Objectives	Hydrologic responses of small watersheds to large river basins e.g., outlet streamflow, temporal and spatial variation in surface water soil, and groundwater
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Model Structure	Finite difference method is used to solve various pdes.
Interception	
Groundwater	
Snowmelt	
Precipitation	
Evapo-transpiration	
Infiltration	
Model Paramters	Hydraulic parameters of soil and groundwater such as conductivity ad stativity; routing parameters; surface parameters such as digital elevations
Spatial Scale	Yes
Temporal Scale	Yes
Input Requirements	Spatial distribution sets such as precipitation; source and sin R terms; streambed conductance
Computer Requirements	Currently on SUN UNIX system
Model Output	Stremflow hydrograph at the basin outlet; spatial and temporal variation in soil moisture, runoff, groundwater table
Parameter Estimatr Model Calibrtn	Various models have been calibrated to observation in various locations, user are expected to conduct model calibration and parameter estimation before the applications
Model Testing Verification	They have been tested and verified to some extends
Model Sensitivity	Some sensitivity experiments were conducted to evaluate the non-unique solutions of groundwater system, how then change in parameters affects the simulations, and effects of subgrib spatial variability on the simulation
Model Reliabiity	
Model Application	Models have been applied to Big Darby Creek Watershed of the Ohio River Basin and several watershed of the Susquehanna river Basin
Documentation	No
Other Comments	No

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Developer	
Technical Contact	
Contact Organization	